

A new species of *Eriocaulon* from Maharashtra¹

BY

A. R. KULKARNI AND M. H. DESAI

Botany Department, Shivaji University, Kolhapur
(With a plate)

***Eriocaulon tuberiferum* sp. nov.**

Herbae tuberiferae, tuberibus 5-15 stipitatis c. 4 mm longis 2.5 mm latis ovalibus vel bilobatis dense pilosis, pilis unicellularibus, caule reducto, foliis basalibus rosulatis linearilanceolatis recurvatis 1.6-4.3 cm longis, medio 2-3 mm latis, acutis utrinque glabris 5-7 nervatis, vaginis viridibus ad pedunculos arcte adpressis 2.5-4.5 cm longis glabris ad apicem oblique fissis, pedunculis 1 vel 2 (raro 3) gracilibus 11-18 cm longis 5- vel 6-costatis, in siccitate conspicue tortis glabris, capitulis globosis niveis 3-7 mm diametro, bracteis involucrantibus numerosis lanceolatis c. 1.7 mm longis 1.1 mm latis obtusis glabris nigris, receptaculo glabro, bracteis receptacularibus atroviridibus concavis 2-2.8 mm longis c. 1 mm latis obtusis versus apicem dorso villosis; floribus masculis in omnes partes capituli numerosis, calyce spatheo atroviridi c. 2.3 mm longo 1.8 mm lato distincte 3-lobato sursum dorso dense piloso, petalis 3 pilosis in tubum membranaceum album c. 1.4 mm longum connatis, loborum petalorum uno distincte magniore et ultra bracteolos receptaculares exserto c. 2 mm longo 1 mm lato, lobis minoribus c. 1.1 mm longis c. 0.5 mm latis, lobis omnibus medio glanduliferis, staminibus 6, antheris juventute albis senectute nigrescentibus, pistillodiis 3 flavidis in tubo petalorum occultis; floribus foemineis paucis solum in peripheria capituli dispositis, sepalis 3 libris viridibus concavis rotundatis c. 1.9 mm longis c. 0.4 mm latis sursum dorso dense pilosis, petalis 3 subaequalibus papyraceis spatulatis 1.9-2.7 mm longis 0.25-0.5 mm latis dense pilosis, glandula subapicali, ovario parvo trigono c. 0.6 mm longo c. 0.25 mm lato trilobulari, stigmatibus 3 c. 0.6 mm longis subsessilibus.

Tuberiferous herbs; tubers stalked, 5-15 per plant, about 4 mm long, 2.5 mm broad, oval or bilobed, covered with dense growth of

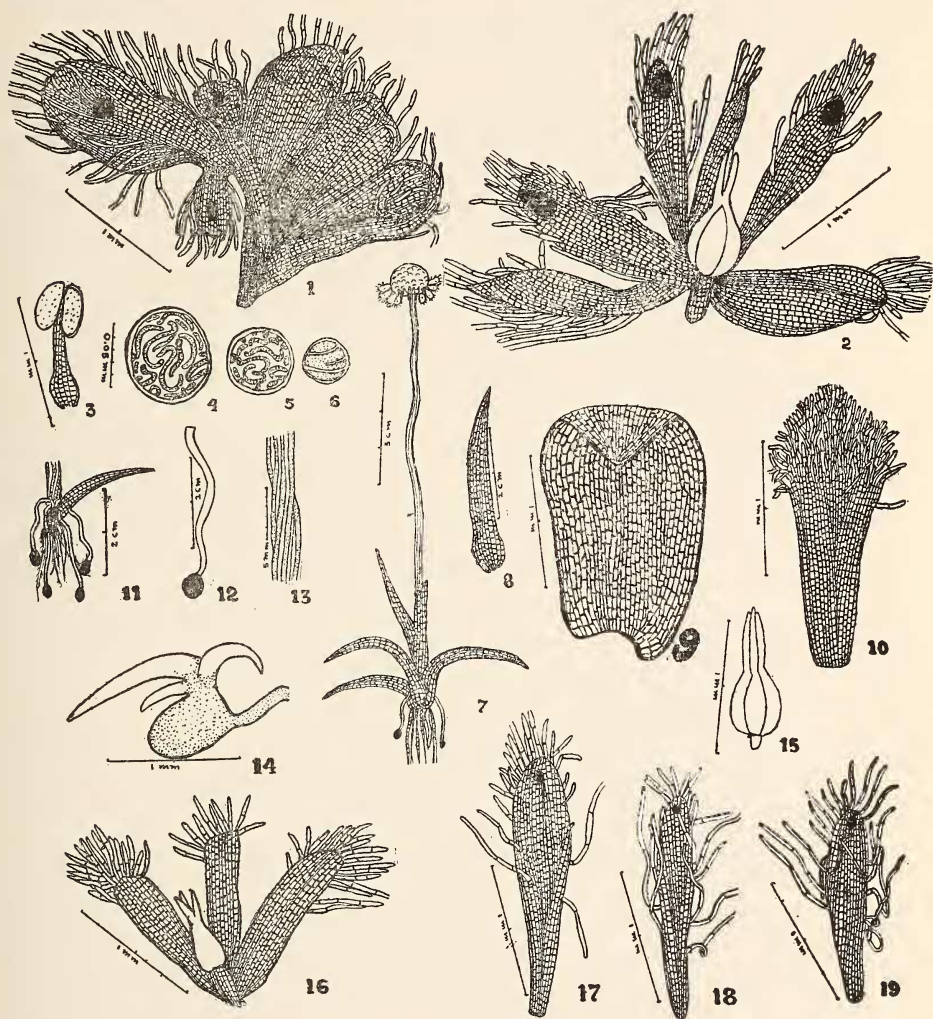
¹ Accepted July 27, 1972.

unicellular hairs. Stem reduced; leaves basal, rosulate, linear-lanceolate, recurved, 1.6-4.3 cm long, 2-3 mm wide in the middle, acute at apex, glabrous on both the surfaces, 5-7 nerved; sheaths green, closely appressed to the peduncles, 2.5-4.5 cm long, glabrous, obliquely split at the apex; peduncles 1-2 (rarely 3) per plant, slender, 11-18 cm long, 5-6 costate, conspicuously twisted in the dried specimens, glabrous; heads globose, snow white, 3-7 mm in diameter; involucrel bractlets many, lanceolate, about 1.7 mm long, 1.1 mm wide, obtuse at apex, glabrous, black; receptacle glabrous; receptacular bractlets deep green, concave, 2-2.8 mm long, about 1 mm wide, obtuse at apex, densely white villous on the back towards the apex: Staminate florets numerous, both towards periphery and the centre of the head; calyx spathaceous, deep green, about 2.3 mm long, 1.8 mm wide, distinctly 3-lobed, densely hairy on the back towards the apex; petals 3, hairy, united into a whitish membranous tube about 1.4 mm long, one of the petal lobes distinctly larger and protruding beyond the receptacular bractlets; the larger lobe about 2 mm long, 1 mm wide, the smaller ones about 1.1 mm long, about 0.5 mm wide; all the lobes medially gland-tipped; stamens 6, anthers white when young but become blackish at maturity; pollen grains spheroidal varying from 26.6 to 53.2 μ in diameter, spiraperturate or with many distinct convoluted unthickened bands, exine smooth; pistillodes 3, pale yellow, hidden in petal tube: Female florets few, restricted to the periphery of the head; sepals 3, free, green, concave, rounded at apex, about 1.9 mm long, about 0.4 mm broad, densely hairy on the back towards the apex; petals 3, subequal, papery, spatulate, 1.9-2.7 mm long, 0.25-0.5 mm wide, densely hairy, gland subapical; ovary small, trigonous, about 0.6 mm long, about 0.25 mm wide, trilocular, 3-ovuled; stigmas 3, about 0.6 mm long, subsessile.

Holotype was collected from Panhala (938 m alt.), Kolhapur district, Maharashtra, along the margins of puddles on 28th July 1968 and is deposited in National Herbarium, Calcutta under Kulkarni and Desai 537 and the Isotypes 538-540 are deposited in the Herbarium of the Shivaji University, Botany Department, Kolhapur.

E. tuberiferum is closely related to *E. ritchieanum* Ruhl. and *E. leucomelas* Steud. From the former it differs in the transition of the anther colour from white in younger condition to blackish at maturity and in its distinct anisopetalous male flower, the largest petal of which projects beyond the receptacular bractlets giving fringed appearance to the head. From the latter species it differs in the petal characters of the male flowers and in having distinctly oblique mouth for the peduncular sheaths. It differs from all the species of *Eriocaulon* known so far in its tuberiferous habit.

Members of this species are commonly seen along the margins of puddles at Panhala from July-September. They grow in association



Eriocaulon tuberiferum Kulkarni et Desai

Fig. 1. Male flower. Fig. 2. Female flower. Fig. 3. Stamen. Figs. 4-6. Pollen grains. Fig. 7. Entire plant. Fig. 8. Leaf. Fig. 9. Involucral bractlet. Fig. 10. Receptacular bractlet. Fig. 11. Basal part of the plant showing tubers. Fig. 12. Stalked tuber. Fig. 13. A part of peduncle showing twists. Fig. 14. Germinated tuber. Fig. 15. Gynoeceum. Fig. 16. Gynoeceum with sepals. Figs. 17-19. Petals of the female flower.

